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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,397	02/12/2004	Fatima M. Mayer	D/A3302	5783

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EXAMINER
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RODEE, CHRISTOPHER D

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/777,397	<b>Applicant(s)</b> MAYER ET AL.	
	<b>Examiner</b> Christopher RoDee	<b>Art Unit</b> 1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.  
 4a) Of the above claim(s) 9-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 13-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/12/04</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Election/Restrictions*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-8 and 13-26, drawn to a toner, classified in class 430, subclass 108.2.
- II. Claims 9-12, drawn to a process of making a toner, classified in class 430, subclass 137.14.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process, such as melt kneading a mixture of resin, colorant, and alkyl amide, cooling the kneaded mixture, grinding, and classifying to form toner particles.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Eugene Palazzo on 15 December 2005 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-8 and 13-26. Affirmation of this election must be made by applicant in replying to this Office action. Claims 9-12 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Specification***

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 23 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Scouten *et al.* in US Patent 4,076,641.

See Examples II – IV for a toner having a styrene-butyl methacrylate binder resin, carbon black colorant, and either oleamide or undecanamide additives.

Claim 23 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Tyagi *et al.* in US Patent 6,156,473.

See Examples 29-47 for toners having styrene-butyl acrylate binder resin, various colorants, and stearamide as an additive.

Claim 23 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Quan in US Patent 4,643,960.

See Examples 3-6, 8, and 10-19 for toners containing epoxy resin, carbon black colorant, and erucamide, behenamide, oleamide, or one of the tradename fatty acid amides disclosed in Table 4.

Claims 1-4, 7, 13-16, 18-21, 23, 24, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Hamano *et al.* in US Patent 6,500,594 considered with Hara in US Patent Application Publication 2004/0192548. Hara is cited solely for its disclosure of melting point of certain alkyl amides.

Hamano discloses a toner containing a sulfopolyester (col. 4, l. 49 – col. 5, l. 45; Examples I & II), a coloring agent in an amount of from 0.1 to 40 parts by weight, preferably 1 to 30 parts by weight (col. 7, l. 52 – col. 8, l. 15), and an aliphatic acid amide, such as oleic amide, erucic amide, recinoleic amide, or stearic amide, as a releasing agent (col. 8, l. 54-59). As seen in ¶ [0066] of Hara, stearic amide has a melting point of 100 °C. Hamano also teaches that the useful melting points of the releasing agent additives are from 50 °C to 120 °C, preferably 60 to 100 °C (col. 9, l. 13-15). The releasing agent is present in an amount of from 1 to 20 parts by weight, preferably 2 to 15 parts by weight, based on 100 parts of the toner components (col. 9, l. 1-4). The sulfopolyesters in Examples I and II have Mw of 9200 and 11000, respectively, and Mn of 6000 and 4700, respectively. This gives a polydispersity of 1.53 and 2.34, respectively. Useful coloring agents include phthalocyanine blue (Example I: a cyan colorant) and carbon

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black (col. 7, l. 57). The toner is mixed with a carrier to form a two-component developer (col. 14, l. 34+).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-8, 13-16, 18-21, 23, 24, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sacripante *et al.* in US Patent 6,140,003 in view of Hamano *et al.* in US Patent 6,500,594, further in view of Hara in US Patent Application Publication 2004/0192548.

Sacripante discloses a toner containing a sulfopolyester, a colorant, and a fuser roller releasing agent (Abstract; col. 6, l. 47 – col. 7, l. 47; col. 8, l. 24-30). Useful resins include poly(1,2-propylene-sodio 5-sulfoisophthalate), poly(1,2-propylene-calcio 5-sulfoisophthalate), poly(1,2-propylene-tetralkylammonium 5-sulfoisophthalate), poly(ethylene-sodio 5-sulfoisophthalate), poly(ethylene-calcio 5-sulfoisophthalate), poly(ethylene-dimethyldistearylammonio 5-sulfoisophthalate), copoly(1,2-propylene-diethylene-terephthalate), copoly(1,2-propylene-diethylene sodio-5-sulfoisophthalate), copoly(1,2-propylene-diethylene-terephthalate), copoly(1,2-propylene-diethylene calcio-5-sulfoisophthalate), copoly(1,2-propylene-diethylene-terephthalate), copoly(1,2-propylene-diethylene calcio-5-sulfoisophthalate), copoly(1,2-propylene-diethylene-terephthalate), copoly(1,2-propylene-diethylene dimethyldistearylammonio-5-sulfoisophthalate), copoly(propoxylated bisphenol A-fumarate), or copoly(propoxylated bisphenol A-sodio 5-sulfoisophthalate) (col. 6, l. 47-65). A

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preferred polyester is copoly(1,2-propylene diethylene terephthalate)-copoly-(1,2-propylene diethylene sodium 5-sulfoisophthalate) (col. 8, l. 21-23). The polyester produced in Example II, which is a copoly(1,2-propylene diethylene terephthalate)-copoly-(1,2-propylene diethylene sodium 5-sulfoisophthalate), has a Tg of 55.5 °C with a Mn of 5100 and a Mw of 9300 giving a polydispersity of 1.82. Useful colorants include carbon black (col. 8, l. 31-43) and the cyan colorants of the Examples (e.g., Example IX). Sacripante does not disclose the release agent of the instant claims, but Hamano discloses a toner containing a sulfopolyester, a coloring agent, and an aliphatic acid amide, such as oleic amide, erucic amide, recinoleic amide, or stearic amide, as a releasing agent. The discussion concerning Hamano above is incorporated here including the citation to useful amounts of the materials. Hara, also incorporated from above, is cited for its disclosure of certain alkyl amide melting points.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the releasing agent of Hamano in the invention of Sacripante because Sacripante teaches that a releasing agent can be included in or on the toner and Hamano discloses specific releasing agents that are shown to be effective with sulfonated polyesters, also used by Hamano. Given the similarities in components between Hamano and Sacripante the artisan would have reasonable expectation of success for the combination of components.

Claims 5, 17, 22, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sacripante *et al.* in US Patent 6,140,003 in view of Hamano *et al.* in US Patent 6,500,594, further in view of Hara in US Patent Application Publication 2004/0192548 as applied to claims 1-4, 6-8, 13-16, 18-21, 23, 24, and 26 above, and further in view of Minami in US Patent 5,567,563.

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Sacripante, Hamano and Hara were discussed above and the findings of fact and conclusions of law set forth there are incorporated here. These references do not disclose the specific alkyl amides of the above rejected claims, but Minami teaches that useful waxes for inclusion in toners as release agents include higher fatty acid amides of 10 to 70 carbon atoms, including stearyl erucamide.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the amide wax of Minami as the amide compound in the combination of Sacripante and Hamano because Hamano teaches that aliphatic acid amides are useful in toners as release agents and Minami discloses a specific aliphatic acid amide that will function for this purpose. It is *prima facie* obvious to use a known compound for its function when called upon by the art. The choice of length of alkyl chain on the alkyl amides is a matter of design choice to give the required release properties by the wax.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher RoDee whose telephone number is 571-272-1388. The examiner can normally be reached on most weekdays from 6:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cdr  
15 December 2005

  
CHRISTOPHER RODEE  
PRIMARY EXAMINER